

**CLAIMS**

1°) **"SYNTHESIS OF A NOVEL PARAMAGNETIC AMINO ACID DERIVATIVE (EPM-5) FOR LABELING DIFFERENT MACROMOLECULES AND SYSTEMS OF CHEMICAL-BIOLOGICAL INTEREST"**, characterized by synthesizing the novel paramagnetic  $\beta$ -amino acid-type derivative 2,2,5,5-tetramethylpyrrolidine-N-oxy-(9-fluorenylmethyloxycarbonyl)-3-amino-4-carboxylic acid that was synthesized from the following sequential intermediates : (a) 2,2,5,5-tetramethylpyrrolidine-1-oxy-3-cyano; (b) 2,2,5,5-tetramethylpyrrolidine-N-oxy-3-amino-4-cyano and (c) 2,2,5,5-tetramethylpyrrolidine-3-amino-4-carboxylic acid (POAC), yielding the derivative above mentioned denominated Fmoc-POAC or EPM-5.

2°) **"SYNTHESIS OF A NOVEL PARAMAGNETIC AMINO ACID DERIVATIVE (EPM-5) FOR LABELING DIFFERENT MACROMOLECULES AND SYSTEMS OF CHEMICAL-BIOLOGICAL INTEREST"**, according to the precedent claim 1 and characterized by the fact that Fmoc-POAC can be coupled to macromolecules or systems through its carboxyl function, irrespective of its use or not in further electron spin resonance method.

3°) **"SYNTHESIS OF A NOVEL PARAMAGNETIC AMINO ACID DERIVATIVE (EPM-5) FOR LABELING DIFFERENT MACROMOLECULES AND SYSTEMS OF CHEMICAL-BIOLOGICAL INTEREST"**, according to the previous claims and after its incorporation to a molecule or a structure, the Fmoc protecting group of the POAC compound can be removed for further coupling of different chemical derivatives at its free amine function.

*Adm*

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